

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MARK B. LESTER and MICHAEL C. JONES

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Appeal No. 2006-1841  
Application No. 09/678,032  
Technology Center 3700

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Decided: August 17, 2006

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Before OWENS, BAHR and LEVY, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the examiner's rejection of claims 31-44.

We AFFIRM-IN-PART.

## BACKGROUND

The appellants' invention relates to an acetabular cup and reamer assembly and associated method for securing the cup to an acetabulum during a hip replacement. Specifically, in appellants' method, a hemispherically-shaped acetabular cavity is reamed into the acetabulum and a sub-hemispherical cup is press-fitted into said cavity. A copy of the claims under appeal is set forth in the appendix to the appellants' brief. Claims 31 and 38 are representative of the claimed subject matter and read as follows:

31. A prosthetic hip and reamer assembly, comprising:
  - a reamer having a cutting head configured to ream a hemispherically-shaped cavity into an acetabulum of a patient; and
    - an acetabular cup configured to be press fit into said cavity, said acetabular cup including a cup body defining an apex portion, an upper rim and an outer surface extending therebetween,
      - wherein an imaginary hemisphere defines a great circle lying in a first plane P1,
      - wherein said cup body is further configured such that when said imaginary hemisphere is superimposed over said cup body, said upper rim lies in a second plane P2 that is spaced apart from said first plane P1 by a distance D,
      - wherein  $0.5 \text{ millimeters} \leq D \leq 2.0 \text{ millimeters}$ , and
      - wherein said cup body is further configured such that when said imaginary hemisphere is superimposed over said cup body, said outer surface of said cup body lies coincident with said imaginary hemisphere from said apex portion to said second plane P2.

38. A method of securing an acetabular cup to an acetabulum, comprising the steps of:

reaming a hemispherically-shaped cavity into said acetabulum; and

press fitting said acetabular cup into said cavity, wherein (i) said acetabular cup including a cup body defining an apex portion, an upper rim and an outer surface extending therebetween, (ii) an imaginary hemisphere defines a great circle lying in a first plane P1, (iii) said cup body is further configured such that when said imaginary hemisphere is superimposed over said cup body, said upper rim lies in a second plane P2 that is spaced apart from said first plane P1 by a distance D, (iii)  $0.5 \text{ millimeters} \leq D \leq 2.0 \text{ millimeters}$ , and (iv) said cup body is further configured such that when said imaginary hemisphere is superimposed over said cup body, said outer surface of said cup body lies coincident with said imaginary hemisphere from said apex portion to said second plane P2.

The examiner relies upon the following as evidence of unpatentability:

Amstutz	US 4,123,806	Nov. 7, 1978
Pratt	US 5,888,205	Mar. 30, 1999

The following rejections are before us for review.

Claims 31, 32, 36-39 and 44 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Amstutz.

Claims 33-35 and 40-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Amstutz in view of Pratt.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding this appeal, we make reference to the final rejection (mailed August 24, 2004) and examiner's answer (mailed June 6, 2005) for the examiner's complete reasoning in support of the rejections and to the appellants' brief (filed February 25, 2005) and reply brief (filed August 10, 2005) for the appellants' arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the following determinations.

With respect to the rejection of claims 31, 32, 36-39 and 44, the appellants have presented separate arguments for independent claims 31 and 38 but have not presented any arguments as to why the dependent claims are separately patentable from claims 31 and 38. Accordingly, claims 32, 36 and 37 shall stand or fall with representative claim 31 and claims 39 and 44 shall stand or fall with representative claim 38 (see *In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); *In re Wood*, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978)).

Amstutz discloses a hip replacement including an acetabular cup 18 that “may be precisely hemispherical, or may be a millimeter or two less than hemispherical in extent” (col. 6, ll. 6-8). Amstutz is silent as to the shape of the acetabular cavity into which the cup 18 is inserted.

Appellants’ claim 31 is directed to a prosthetic hip and reamer assembly comprising a reamer and an acetabular cup. Claim 31 does *not* require a hemispherical cavity to be reamed into the acetabulum but, rather, recites a reamer having a cutting head “configured to ream a hemispherically-shaped cavity into an acetabulum.” The last four paragraphs of claim 31, which define an imaginary hemisphere lying coincident with the cup body from the apex portion to the second plane (i.e., the plane in which the upper rim of the cup lies) and defining a great circle lying in a first plane P1 and include a recitation that “said upper rim lies in a second plane P2 that is spaced apart from said first plane P1 by a distance D,” call for the acetabular cup to be sub-hemispherical, or less than hemispherical, in shape.

Appellants argue that claim 31 is not anticipated by Amstutz because Amstutz does not disclose a hemispherical reamer and a sub-hemispherical cup. This argument is not commensurate with the scope of claim 31 because claim 31, as recognized by the examiner (final rejection, pp. 3-4), does not specifically require a particular shape of reamer. It is well established that limitations not appearing in the claims cannot be relied upon for patentability. *In re Self*, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982).

The examiner contends that the reamer of Amstutz (col. 7, first full para.) is capable of reaming a hemispherically-shaped cavity into an acetabulum (final rejection, p. 4) and appellants have not challenged this contention. In light of appellants' concession on page 3 of the present specification that "the cutting head of heretofore designed reamers are typically configured as relatively true hemispheres" and failure to challenge the examiner's contention that the Amstutz reamer is capable of reaming a hemispherically-shaped cavity, we find that one of ordinary skill in the art at the time of appellants' invention would have understood the reamers used in the Amstutz hip replacement to be configured to ream a hemispherically-shaped cavity into an acetabulum and adopt the examiner's position.

In light of the above, appellants' argument fails to persuade us of any error on the part of the examiner in rejecting claim 31 as being anticipated by Amstutz. The rejection of claim 31, as well as claims 32, 36 and 37 which stand or fall with claim 31, is sustained.

We shall also sustain the rejection of dependent claims 33-35 as being unpatentable over Amstutz in view of Pratt inasmuch as appellants have not challenged such with any reasonable specificity (*see In re Nielson*, 816 F.2d 1567, 1572, 2USPQ2d 1525, 1528 (Fed. Cir. 1987)).

The rejection of claim 38, and dependent claims 39 and 44, as being anticipated by Amstutz, however, is not sustained. Claim 38 recites a method comprising the steps of reaming a hemispherically-shaped cavity into the

acetabulum and press fitting a sub-hemispherical cup (i.e., a cup having the shape of less than a hemisphere) into said cavity. While Amstutz clearly discloses that the cup may be precisely hemispherical or may be a millimeter or two less than hemispherical in extent, Amstutz is silent as to the shape of the cavity in either of these two cases. Accordingly, one is left to speculate as to whether Amstutz contemplated a hemispherical or less than hemispherical cavity when a cup that is a millimeter or two less than hemispherical in extent is used. It is well established that an anticipation rejection cannot be predicated on an ambiguous reference. Rather, disclosures in a reference relied on to prove anticipation must be so clear and explicit that those skilled in the art will have no difficulty in ascertaining their meaning. *In re Turlay*, 304 F.2d 893, 899, 134 USPQ 355, 360 (CCPA 1962).

In rejecting claims 40-43 as being unpatentable over Amstutz in view of Pratt, the examiner (final rejection, p. 3) relies on Pratt for a suggestion to ream an acetabular cavity that is smaller than the cup in order to create a secure interference fit that aids in preventing loosening of the prosthesis after implantation (col. 2, ll. 9-11). Such modification of Amstutz would still not yield the invention recited in claims 40-43, which depend from claim 38, for the reason discussed above.

## CONCLUSION

To summarize, the decision of the examiner to reject claims 31-44 is  
**AFFIRMED-IN-PART.**

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

*Terry J. Owens*  
TERRY J. OWENS  
Administrative Patent Judge

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